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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/851,465 05/05/97 ROBINSON

E INT21246

QM02/0329

EXAMINER

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ART UNIT

PAPER NUMBER

3743

DATE MAILED:

03/29/00

AIR MAIL

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/851,465**

Applicant(s)  
**Robinson et al**

Examiner  
**David Lee**

Group Art Unit  
**3743**



☒ Responsive to communication(s) filed on Mar 10, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-9 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-9 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### DETAILED ACTION

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Hirt '020*.

*Hirt '020* discloses a burner assembly comprising an air aspirated nozzle 42 a compressor to provide air under positive pressure to the air aspirated nozzle, a fuel supply to supply fuel at ambient pressure to the air aspirated nozzle, the fuel entering the nozzle under negative pressure created by air entering the air aspirated nozzle under positive pressure, a manual valve 70 interposed between the fuel supply and the air aspirated nozzle, the manual valve being adjustable to increase or decrease the fuel supplied to the air aspirated nozzle from the fuel tank, compressor is operatively connected via the air aspirated nozzle and associated piping to the fuel tank thereby creating the suction in the fuel tank, a valve interposed between the compressor and the fuel tank, the valve 63 having a first and second positions, the first position allowing vacuum (created by) from the compressor to be applied to the fuel tank, a second position isolating the compressor from the fuel tank, a valve 63i interposed between the metering valve 70 and the nozzle, the valve having a first and a second position, the first position allowing fuel to pass to the air aspirated nozzle and the second position isolating the air aspirated nozzle from the fuel tank. The manual valve of *Hirt '020* is capable of being adjusted to increase or decrease the flow of fluid through the valve and therefore is considered a metering valve as broadly cited.

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In regards to the preamble citing "infrared burner", the burner assembly of *Hirt '020* meets the claimed structure, and therefore is considered an infrared burner, further the body of the claim does not cite the burner as being infrared or refer back to the preamble.

***Claim Rejections - 35 USC § 103***

2. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hirt '020* as applied to claim 1 above, and further in view of *Hirt '985*. *Hirt '020* discloses substantially the claimed invention except zero pressure regulator between the metering valve and the fuel tank.

*Hirt '985* discloses gas burner assembly for fuel tank vapor burning with a zero pressure regulator 44 disposed between the burner, solenoid valves, check valves, and the fuel tank, the zero pressure regulator 44 is adjustable and regulates the pressure in the fuel tank to slightly above and slightly below atmospheric pressure so as to protect the tank from over pressurization and from collapsing under deep vacuum.

It would have been obvious to one skilled in the art at the time of the invention to use the zero pressure regulator 44 mounted between the burner and valves of *Hirt '985* with the burner assembly of *Hirt '020* for the desirable purpose of protecting the fuel tank from over pressurization and deep vacuum.

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***Conclusion***

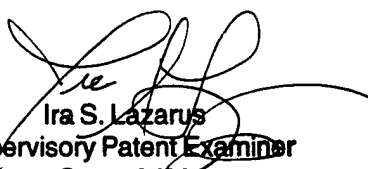
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Of significant interest, *Howarth et al* discloses a flare (fig 1) with air compressor for drawing fuel gas from a land fill or other low pressure gas fuel source with injector and connecting burner outlet nozzle. *Abalos* discloses a clean burning tubular infrared burner figures 4-11 which burns a mixture of fuel and air. *Hirt '170* discloses burner assembly with air compressor.

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to David B. Lee whose telephone number is (703) 305-0181. The examiner can normally be reached on weekdays from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira S. Lazarus, can be reached on (703) 308-1935. The fax phone number for this Group is (703) 308-7764.

dbl

3/23/2000

  
Ira S. Lazarus  
Supervisory Patent Examiner  
Group 3700